

IN THE CLAIMS:

Please amend the claims as follows.

Claims 1-3 are cancelled.

4. (Currently amended) ~~The method of claim 1 further comprising~~ A method comprising:
receiving a plurality of frames;
storing the frames in a receive buffer, wherein the receive buffer is configured to be
accessed in a first-in-first-out fashion;
storing duplicated header information corresponding to each of the frames in a header
storage, wherein the header storage is configured to provide access to the
duplicated header information in the same order as the frames;
maintaining a timer corresponding to each duplicated header information in the header
storage that indicates how long the corresponding duplicated header information
has been in header storage;
retrieving duplicated header information from the header storage, wherein the duplicated
header information corresponds to a first frame;
prior to the first frame reaching a head position in the receive buffer, making a routing
decision for delivering the first frame to its destination based upon the duplicated
header information read from the header storage;
retrieving the first frame from the receive buffer; and
routing the first frame based upon the routing decision.
5. (Previously Presented) The method of claim 4 further comprising
retrieving the timer corresponding to the retrieved duplicated header information,
determining whether the timer corresponding to the retrieved duplicated header
information exceeds a predetermined maximum value, and
discarding the frame corresponding to the duplicated header information if the timer
corresponding to the retrieved duplicated header information exceeds the
predetermined maximum value.

Claims 6-7 are cancelled.

8. (Currently amended) The method of claim 4 wherein the receive buffer is a first-in-first-out (FIFO) buffer having a head position and a tail position, wherein entries are written to the tail position and are promoted through the FIFO buffer to the head position, and wherein retrieving the first frame from the receive buffer comprises reading the frame at the head position,
further comprising providing a bypass circuit coupled to the header storage, wherein if no duplicated header information is available at the head of the header storage, the bypass circuit makes next-received duplicated header information immediately available.

Claims 9-10 are cancelled.

11. (Currently amended) A frame buffer system comprising:
a receive buffer configured to store a plurality of received frames, wherein the receive
buffer is configured to be accessed in first-in-first-out fashion;
a header storage configured to store duplicated header information corresponding to
each of the frames in the receive buffer;
transfer logic coupled to the receive buffer and header storage, wherein the transfer
logic is configured to make a routing decision for delivering each of the frames in
the receive buffer to a destination based on the corresponding duplicated header
information read from the header storage, the routing decision being made prior
to the corresponding frame reaching a head position in the receive buffer, and to
transmit each of the frames to a destination port according to the corresponding
routing decision; ~~The frame buffer system of claim 9 and~~
~~further comprising~~ a bypass circuit configured to receive first duplicated header
information, wherein when duplicated header information is received, if no preceding
duplicated header information is currently stored in the header storage, the bypass
circuit is configured to make the first duplicated header information available to the
transfer logic.

Claims 12-14 are cancelled.

15. (Currently amended) The frame buffer system of claim ~~[[9]]~~ 11, further comprising a
plurality of timers associated with the frames in the receive buffer, wherein each timer indicates
the amount of time the corresponding frame has been in the receive buffer.
16. (Original) The frame buffer system of claim 15 wherein the timers are stored in a first-
in-first-out (FIFO) timer storage, wherein the timers are promoted through the FIFO timer
storage as the corresponding frames are promoted through the receive buffer.
17. (Original) The frame buffer system of claim 15 wherein the timers are stored in a
random access timer storage, wherein each timer is associated with one of the frames in the
receive buffer.

18. (Currently amended) The frame buffer system of claim ~~[[9]]~~ 11 further comprising a transmit timer associated with the transmit buffer, wherein the transmit timer indicates the amount of time the frame currently residing in the transmit buffer has been in the transmit buffer.

Claims 19-23 are cancelled.